

1

SEQUENCE LISTING

<110>	MIYAMOTO	, KAORU
	YAZAWA,	TAKASHI
	UMEZAWA,	AKIHIRO

- <120> METHOD FOR DIFFERENTIATING MESENCHYMAL STEM CELLS INTO STEROID-PRODUCING CELLS
- <130> 47232-5014 (230640)
- <140> 10/591,530
- <141> 2006-09-01
- <150> PCT/JP05/02548
- <151> 2005-02-18
- <150> JP 2004-058406
- <151> 2004-03-03
- <160> 18
- <170> PatentIn Ver. 3.3
- <210> 1
- <211> 23
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Description of Artificial Sequence: Synthetic primer
- <400> 1

gaaggaaagc cagcaggaga acg

23

- <210> 2
- <211> 23
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Description of Artificial Sequence: Synthetic primer
- <400> 2

ctctgatgac accactctgc tcc

23

- <210> 3
- <211> 23
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Description of Artificial Sequence: Synthetic primer

<210>				
	4			
-211-				
<211>		•		
<212>				
<213>	Artificial Sequence			
<220>	December of Authority	0	G	
<223>	Description of Artificial primer	sequence:	Synthetic	
<400>	4			
cggtta	agaga aggcaggata gag			
<210>	5			
<211>	22			
<212>	DNA			
<213>	Artificial Sequence			
<220>				
<223>	Description of Artificial primer	Sequence:	Synthetic	
<400>	5			
gcagao	ccatc ctagatgtca at			
<210>	6			
<211>	20			
<212>	DNA			
<213>	Artificial Sequence			
<220>				
<223>	Description of Artificial primer	Sequence:	Synthetic	
<400>				
tcatca	atagc tttggtgagg			
<210>	7			
<211>	23			
<212>	DNA			
<213>	Artificial Sequence			
<220>				
<223>	Description of Artificial primer	Sequence:	Synthetic	
	7			
<400>	•			

```
<210> 8
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      primer
<400> 8
tgggtgtggg tgtaatgaga tgg
                                                                    23
<210> 9
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      primer
<400> 9
agaggatccg cttggggctg c
                                                                    21
<210> 10
<211> 21
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      primer
<400> 10
ggagaattcc ttatggatgg c
                                                                    21
<210> 11
<211> 24
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      primer
<400> 11
tcaccaaatg tatcaagaat gtgt
                                                                    24
<210> 12
<211> 24
<212> DNA
<213> Artificial Sequence
```

• • •

		4		
<220>		•		
	Description of Artificial primer	Sequence:	Synthetic	
<400>	12			
ccatct	gcac atcetette tett.		2	4
<210>	12			
<211>				
<212>				
<213>	Artificial Sequence			
<220>				
<223>	Description of Artificial primer	Sequence:	Synthetic	
<400>	13			
ccaaca	agatg tatctggaag gtgc		24	4
<210><211>				
<211>				
	Artificial Sequence			
<220>				
	Description of Artificial primer	Sequence:	Synthetic	
<400>	14			
ccatct	gcac atcetettge etca		24	4
<210>				
<211><212>				
	Artificial Sequence			
	-			
<220> <223>	Description of Artificial primer	Sequence:	Synthetic	
<400>	15			
	agtcc atgccatcac		20	0
<210>				
<211><212>				
	Artificial Sequence			
-220-				
<220> <223>	Description of Artificial primer	Sequence:	Synthetic	
<400>	16			
tccacc	accc tgttgctgta		20	Λ

.

<210> 17

```
<211> 1389
<212> DNA
<213> Rattus norvegicus
<400> 17
atggactatt cgtacgacga ggacctggac gagctgtgtc cagtgtgtgg tgacaaggtg 60
tegggetace actaeggget geteaegtge gagagetgea agggettett caagegeaca 120
gtccagaaca acaagcatta cacgtgcacc gagagtcaga gctgcaaaat cgacaagacg 180
cagcgtaagc gctgtccctt ctgccgcttc cagaagtgcc tgacggtggg catgcgcctg 240
gaagetgtge gtgetgateg aatgegggge ggeeggaaca agtttgggee catqtacaaq 300
agagaccggg cettgaagca gcagaagaaa gcacagatte gggecaatgg etteaaactg 360
gagaccggac caccgatggg ggttcccccg ccacccctc ccccaccgga ctacatgtta 420
ccccctagcc tgcatgcacc ggagcccaag gccctggtct ctggcccacc cagtgggccg 480
ctgggtgact ttggagcccc atctctgccc atggccgtgc ctggtcccca cgggcctctg 540
getggetace tetateetge ettetetaac egeaceatea agtetgagta tecagagece 600
tacgccagcc cccctcaaca gccagggcca ccctacagct atccggagcc cttctcagqa 660
gggcccaatg taccagagct catattgcag ctgctgcaac tagagccaga ggaggaccag 720
gtgcgtgctc gcatcgtggg ctgcctgcag gagccagcca aaagccgccc tgaccagcca 780
gegecettea geeteetetg eaggatggeg gaccagacet ttateteeat tgtegactgg 840
gcacgaaggt gcatggtatt taaggagctg gaggtggctg accagatgac actgctgcag 900
aactgctgga gtgagctgct ggtgctggac cacatctacc gccaggtcca gtacggcaag 960
gaagacagca tettgetggt caetggacag gaggtggage tgagcacggt ggetgtgeag 1020
gctggctccc tgctgcacag cctggtgctg cgggcacagg agttggtgct gcagctgcat 1080
gccctgcaac tggaccgcca ggagtttgtc tgtctcaagt tcctcatcct cttcagcctc 1140
gatgtgaaat teetgaacaa ecacageetg gtaaaggaeg eecaggagaa ggeeaacgee 1200
gccctgctgg attacacctt gtgtcactac ccacactgcg gggacaaatt ccagcagttg 1260
ctattgtgcc tggtggaggt gcgggcactg agcatgcagg ccaaggagta tctgtaccat 1320
aagcatttgg gcaacgagat gccccgcaac aaccttctca ttgagatgct gcaggccaag 1380
cagacttga
<210> 18
<211> 2393
<212> DNA
<213> Homo sapiens
<400> 18
aagetteagg gatggeagee gettgtgaga aaceetgage atgageeact cageeacea 60
gccacccagt cacccagcca cccagccacc cagtcaccca gaaaagctgc tcctgggtgc 120
tgcaccctcg gaagctgtga gataataaac atttattgtt ttaagccact aaattttggg 180
ataatttgtt aagcagcagt aaacagctaa tacattcagc cttgtttgga gtgagtgatg 240
tgtttctgga agctctttca gagaagtgag ggagctattc tcccagaagc cacagcaaac 300
ctttccctgt;gtttcattgg cccaaactgg atcggctggc ctatgctgtg atgtgaccat 360
ggcgattgga gaggatgagg caataacctc cagcctgggc cacttctggg gaggcggtca 420
gtgcccacaa cactggggga ggtgcggagg cctgaacgga agttggggtg gctgccaaga 480
ggaccacaag ttcttccatg ccacatcgat tagggctcct tctgagggag gaatgtgggg 540
ctgcgtagaa caatgggatt gactttaagt cagaaagtta taaatgtcac ctcagtgctg 600
agaccettgg aggaaaaact agteettgga agactgettt tettgtggaa geteateace 660
ctgccgctgc tcgtgagaca ctgccttcct tggctgatgt cattccaggc tcaaggtcat 720
catggaggca aaacaggctt tctcatactc tctttatcag aaggttcatg actgatgagg 780
tagtggtcac tccagcggga agagcaacaa ccactcttga taagtacttt ttttttttt 840
tctaaaaact gttgctctaa atttgttgaa agtggttcaa cagtattgga gtctggggtc 900
aagtggctgt gtaaggacaa cttttgccat tgtgggtgat ctatgggctg acacatacaa 960
cagaagaggc caggaggatg tcactcgtgt gtgtgtgtgt gtgtgtgtgt gtgttggtaa 1020
cagctctatt gagatataat tcacacacca tacattcacc catttaaagt atgcaattca 1080
```

atggctttta gtgtatagag agttgttcaa taattaccac atatctttag aatattttca 114 ttttcatcat cctaagaatc cctaacacct ttatgtccaa agacagcac tctgtcgtaa agaaagcaaga agtacttcc aatgatagg tttggggaaa atggtgtgtaa ttgggcacacaca tttttgtggaa atggtctacacat ttttgtggaa atgggtctgaa atggctctacacact ttttgtggaa atgggtctgaaccacact ttttgtggaa atgggtctgaa atgggggggggg							
atggetttta gtgtatagag agttgtteaa taattaceae atatetttag aatatttee 114 tttteateat eetaagaate eetaaeaeet ttatgteeea teetetaatt eetetateee 126 cetageteta ageaaceaee agtetattt etgtetgtta gatgtgtgtt ttaaatgeet 126 tatttgeeag aaaataagat tttggggaaa aaaageaaga agtaeettee aatgataagt 132 acatacaeat ttttaceaag tgggetgtaa ttttgttgaa atgaettgaa aacetetaeag 144 gtgaetgaee ettgttgtt gggaaagtgg tagggteggg gtgggggggggg							
atggetttta gtgtatagag agttgtteaa taattaceae atatetttag aatatttee 114 tttteateat eetaagaate eetaaeaeet ttatgteeea teetetaatt eetetateee 126 cetageteta ageaaceaee agtetattt etgtetgtta gatgtgtgtt ttaaatgeet 126 tatttgeeag aaaataagat tttggggaaa aaaageaaga agtaeettee aatgataagt 132 acatacaeat ttttaceaag tgggetgtaa ttttgttgaa atgaettgaa aacetetaeag 144 gtgaetgaee ettgttgtt gggaaagtgg tagggteggg gtgggggggggg							
atggetttta gtgtatagag agttgtteaa taattaceae atatetttag aatatttee 114 tttteateat eetaagaate eetaaeaeet ttatgteeea teetetaatt eetetateee 126 cetageteta ageaaceaee agtetattt etgtetgtta gatgtgtgtt ttaaatgeet 126 tatttgeeag aaaataagat tttggggaaa aaaageaaga agtaeettee aatgataagt 132 acatacaeat ttttaceaag tgggetgtaa ttttgttgaa atgaettgaa aacetetaeag 144 gtgaetgaee ettgttgtt gggaaagtgg tagggteggg gtgggggggggg							
ttttcatcat cctaagaatc cctacacat ttatgtcca tcctctaatt cctctatccc 120 cctagctcta agcaaccacc agtctattt ctgtctgtta gatgtgtgt ttaaatgcct 120 tatttgccag aaaataagat tttggggaaa aaaagcaaga agtaccttcc aatgataagt 132 ataaggtata gtgtagattg ctgtcatgaa atgctctaca tggcacatgt atgttttctg 138 acctacacat ttttaccaag tgggctgtaa ttttgttgaa atgacttgaa aactctacag 144 gtgactgacc cttgttgtt gggaaagtgg taggtgcagg gtgatggggg gtgggtgtgg 150 gggctgacct gggctgaag gatgggtctg gggatatgat atgatgggag ggggtatgga 156 agcacgctctg aggggtttgc agcacagatc aagtgtgtgg acagggaaga gctgacatcc 162 tgagttccgg atggcacca ggatttgccaa ggtcttagag tggtccaag gtggagcctg 168 accacagacc tcagctcaag gggagaagac cccctctgag tcagctgtac tgaattacag 174 gccattgcg tccaagctg gggagagacg acgaggata ggggtcataca 186 acgcctaag gatgcattc tcagacctag gggagagacg acgaggata gggtccaag gtgccatca 192 agtggggcca tacctaagac gtatgttccc caagctgca agtgggccct tagactaacagac taggagcccc attcccca aaccacaggt gtccaaggag gcccaaggac ccagtggacc attcacag gtatgttccca aaccacaggtc tcagacctc attcacaga gtatgttccc aaccacagac tcagacctc tcagacctag gatgacctc tcagacctac tcagaccta tcagacctac tcagacctag gatgacctc tcagacctac tcagacctag gatgacctc tcagacctac tcagacctag gatgacctc tcagacctac tcagacctag gatgacctc tcagacctac tcagaccagac				6	· ·		
ttttcatcat cctaagaatc cctacacat ttatgtcca tcctctaatt cctctatccc 120 cctagctcta agcaaccacc agtctattt ctgtctgtta gatgtgtgt ttaaatgcct 120 tatttgccag aaaataagat tttggggaaa aaaagcaaga agtaccttcc aatgataagt 132 ataaggtata gtgtagattg ctgtcatgaa atgctctaca tggcacatgt atgttttctg 138 acctacacat ttttaccaag tgggctgtaa ttttgttgaa atgacttgaa aactctacag 144 gtgactgacc cttgttgtt gggaaagtgg taggtgcagg gtgatggggg gtgggtgtgg 150 gggctgacct gggctgaag gatgggtctg gggatatgat atgatgggag ggggtatgga 156 agcacgctctg aggggtttgc agcacagatc aagtgtgtgg acagggaaga gctgacatcc 162 tgagttccgg atggcacca ggatttgccaa ggtcttagag tggtccaag gtggagcctg 168 accacagacc tcagctcaag gggagaagac cccctctgag tcagctgtac tgaattacag 174 gccattgcg tccaagctg gggagagacg acgaggata ggggtcataca 186 acgcctaag gatgcattc tcagacctag gggagagacg acgaggata gggtccaag gtgccatca 192 agtggggcca tacctaagac gtatgttccc caagctgca agtgggccct tagactaacagac taggagcccc attcccca aaccacaggt gtccaaggag gcccaaggac ccagtggacc attcacag gtatgttccca aaccacaggtc tcagacctc attcacaga gtatgttccc aaccacagac tcagacctc tcagacctag gatgacctc tcagacctac tcagaccta tcagacctac tcagacctag gatgacctc tcagacctac tcagacctag gatgacctc tcagacctac tcagacctag gatgacctc tcagacctac tcagacctag gatgacctc tcagacctac tcagaccagac					•		
cctagctcta agcaaccac agtctattt ctgtctgtta gatgtgtgt ttaaatgcct 126 tatttgccag aaaataagat tttggggaaa aaaagcaaga agtaccttcc aatgataagt 132 ataaggtata gtgtagattg ctgtcatgaa atgctctaca tggcacatgt atgtttctg 138 acctacacat ttttaccaag tgggctgtaa ttttgttgaa atgacttgaa aactctacag 144 gtgactgacc cttgttgttt gggaaagtgg taggtgcagg gtgatggggg gtgggtgtgg 150 gggctgacct gggctggaag gatgggtctg gggatatgat atgatggag ggggtatgga 156 agcagctctg aggggtttgc agcacagatc aagtgtgtgg acagggaaga gctgacatcc 162 tgagttccgg atggcaacca gatttgccaa ggtcttagag tgtgtccaga gtggagcctg 168 accacagacc tcagctcaag ggacccagag cccctctgag tcagctgtac tgaattacag 174 ccccaaatct gggtcaactg ggagagacg acgaggatta gggttccaag gtgaaactgt 180 gccattgcgc tccagcctgg gcaacaagaa tgaacctct ttaaaataaa ataaaataaa							
tatttgccag aaaataagat tttggggaaa aaaagcaaga agtaccttcc aatgataagt 132 ataaggtata gtgtagattg ctgtcatgaa atgctctaca tggcacatgt atgttttctg 138 acctacacat ttttaccaag tgggctgtaa ttttgttgaa atgacttgaa aactctacag 144 gtgactgacc cttgttgtt gggaaagtgg taggtgcagg gtgatggggg gtgggtgtgg 150 agcagctctg aggggtttgc agcacagatc aagtgtgtgg acagggaaga gctgacatcc 162 agggttccg atggcacaca gatttgccaa gggtcttagag tgtgtccaga gtggagcctg 168 accacagacc tcagctcaag ggacccagag cccctctgag tcagctgtac tgaattacag 174 ccccaaatct gggtcaacca gatttgccaa gggaggatta gggttccaag gtgaaactgt 180 acagggagcca tccagcctgg gcaacaagaa tgaaactctc ttaaaataaa ataaaataaa							
ataaggtata gtgtagattg ctgtcatgaa atgctctaca tggcacatgt atgtttctg 138 acctacacat ttttaccaag tgggctgtaa ttttgttgaa atgacttgaa aactctacag 144 gtgactgacc cttgttgtt gggaaagtgg taggtgcagg gtgatggggg gtgggtgtgg 150 agcagctctg aggggtttgc agcacagatc aagtgtgtgg acagggaaga gctgacatcc 162 agcacagacc tcagctcaag gatttgccaa ggtcttagag tgtgtccaga gtggagcctg 168 accacagacc tcagctcaag ggacccagag cccctctgag tcagctgtac tgaattacag 174 ccccaaatct gggtcaacca gaccacagac accacagacc tcagctcaag ggaacacagac accacagacc gggagagacg accagaggatta gggttccaag gtgaaactgt 180 accacagacc tcagctcaag ggaacaagaa tgaaactctc ttaaaataaa ataaaataaa	cctagctcta	agcaaccacc	agtctatttt	ctgtctgtta	gatgtgtgtt	ttaaatgcct	1260
acctacacat tittaccaag tiggetigtaa tittigtigaa atgactigaa aactictacag 144 gigactigacc citigtigti giggaaagtig taggigcagg gigatiggggg gigggigtigg 150 giggetigacct giggetigaag gatigggigtig gigggigtigg aggactigaactig aggigtitige agcacagate aagtigtigg acagggaaga gitigacatee 162 tigagiticegg atggeaacca gatitigeeaa gigtettagag tigtgiceaga gitigagacetig 168 accaeagace teageticaag gigaaccagagi eeeettigag teagetigae tigaaactig 174 eeeetaagacetigeega gigagaagaaga gitigaaactig 174 gigagacetig gigagaagaaga eeeettigag teagetigaa ataaaataaa 186 ataageetaag gigagaacti teagaactia teeetigtig teaaataaa ataaaataaa 186 ataageetaag gigagagace aacaagaa tigaaactiet tigaacaatig gigagaccii 198 gigagaceete atticeeeaa gitatigiee eaagetigaa agatagetee gaceetteeti 198 ataageeetee gitigaagaceetee aacaeaggit gictigaagae agatagetee getigeeagae 204 eatiticaggag tetigeeaggi eeggaagaga gicceeagee agagagagae 222 tigeeggig tittgageetig eageagagag aaagaeegtiga acatititate agetieetig 228 ataggeeettiga gictigeagti ataateetig eeggagagae eageggetia agateetee agetieetig 228 ataggeeettiga gictigeagti ataateetigg eeggagagae eageggetia agateetee agetieetig 228 ataggeeettiga gictigaagetiga acatititate agetieetig 228 ataggeeettiga gictigaagee eeggagagagae eeggagagae eageggetia agateetee agetieetig 228 ataggeeettiga gictigaageetee agetiges aaateetee aacaeggit eeggagagae eeggagagae eeggagagaeetee eeggagagaeeteega aaateetig eeggagagaee eeggagagaeeteega eageagagaeeteega aaateetig eeggagagaeeteega aacaeetee agetiges aacaeetee agetiges							
gtgactgacc cttgttgttt gggaaagtgg taggtgagg gtgatgggg gtggtgtgg 150 gggctgacct gggctggaag gatgggtctg gggatatgat atgatgggag ggggtatgga 156 agcagctctg aggggtttgc agcacagatc aagtgtgtgg acagggaaga gctgacatcc 162 tgagttccgg atggcaacca gatttgccaa ggtcttagag tgtgtccaga gtggagcctg 168 accacagacc tcagctcaag ggacccagag cccctctgag tcagctgtac tgaattacag 174 ccccaaatct gggtcaactg gggagagacg acgaggatta gggttccaag gtgaaactgt 180 gccattgcgc tccagcctgg gcaacaagaa tgaaactctc ttaaaaataaa ataaaataaa	ataaggtata	gtgtagattg	ctgtcatgaa	atgctctaca	tggcacatgt	atgttttctg	1380
gtgactgacc cttgttgttt gggaaagtgg taggtgagg gtgatgggg gtggtgtgg 150 gggctgacct gggctggaag gatgggtctg gggatatgat atgatgggag ggggtatgga 156 agcagctctg aggggtttgc agcacagatc aagtgtgtgg acagggaaga gctgacatcc 162 tgagttccgg atggcaacca gatttgccaa ggtcttagag tgtgtccaga gtggagcctg 168 accacagacc tcagctcaag ggacccagag cccctctgag tcagctgtac tgaattacag 174 ccccaaatct gggtcaactg gggagagacg acgaggatta gggttccaag gtgaaactgt 180 gccattgcgc tccagcctgg gcaacaagaa tgaaactctc ttaaaaataaa ataaaataaa	acctacacat	ttttaccaag	tgggctgtaa	ttttgttgaa	atgacttgaa	aactctacag	1440
gggctgacct gggctggaag gatgggtctg gggatatgat atgatgggag ggggtatgga 156 agcagctctg aggggtttgc agcacagatc aagtgtgtgg acagggaaga gctgacatcc 162 tgagttccgg atggcaacca gatttgccaa ggtcttagag tgtgtccaga gtggagcctg 168 accacagacc tcagctcaag ggacccagag cccctctgag tcagctgtac tgaattacag 174 ccccaaatct gggtcaactg gggagagacg acgaggatta gggttccaag gtgaaactgt 180 gccattgcgc tccagcctgg gcaacaagaa tgaaactctc ttaaaaataaa ataaaataaa	gtgactgacc	cttgttgttt	gggaaagtgg	taggtgcagg	gtgatggggg	gtgggtgtgg	1500
tgagttccgg atggcaacca gatttgccaa ggtcttagag tgtgtccaga gtggagcctg 1688 accacagacc tcagctcaag ggacccagag cccctctgag tcagctgtac tgaattacag 1744 ccccaaatct gggtcaactg gggagagacg acgaggatta gggttccaag gtgaaactgt 1880 gccattgcgc tccagcctgg gcaacaagaa tgaaactctc ttaaaaataaa ataaaataaa							
tgagttccgg atggcaacca gatttgccaa ggtcttagag tgtgtccaga gtggagcctg 1688 accacagacc tcagctcaag ggacccagag cccctctgag tcagctgtac tgaattacag 1744 ccccaaatct gggtcaactg gggagagacg acgaggatta gggttccaag gtgaaactgt 1880 gccattgcgc tccagcctgg gcaacaagaa tgaaactctc ttaaaaataaa ataaaataaa							
accacagace teageteaag ggacceagag cecetetgag teagetgtae tgaattacag 174 ceceaaatet gggteaactg gggagagaeg acgaggatta gggtecaag gtgaaactgt 180 gecattgege tecageetgg geaacaagaa tgaaactete ttaaaaataaa ataaaataaa 186 atageetaag gatgeatte teagaactta teeetgttgt teaatgatgt gtgtetatae 192 agtggggeea taactaagae gtatgttgee caagetggea agatagetet gacettetet 198 tgggeeeete attteeeea aacacaggtt gtetgeagte ttgaecaatg getgeeaggg 204 catgggaetee getgeaggg eeggeaggag geeeeagete aggeaaaage acaggeagat 210 attteeagag tetgetaggg etggeaetga gggeagagae agaggggtet eeetgteett 216 tggagaacet eacgetgeag aaatteeaga etgaacettg atacegagta ggggaggage 222 tgtetgegg tttgageetg eageaggagg aaggaegtga acattttate agettetggt 228 atggeettga getggtagtt ataatettgg eeetggtgg eeagggetea agteateeta 234							
gccattgcgc tccagcctgg gcaacaagaa tgaaactctc ttaaaataaa ataaaataaa	accacagacc	tcagctcaag	ggacccagag	cccctctgag	tcagctgtac	tgaattacag	1740
gccattgcgc tccagcctgg gcaacaagaa tgaaactctc ttaaaataaa ataaaataaa							
agtggggcca taactaagac gtatgttgcc caagctggca agatagctct gaccttctct 198 tgggcccctc atttcccca aacacaggtt gtctgcagtc ttgaccaatg gctgccaggg 204 catggactcc gctgcagggg ccagtgggag gccccagctc aggcaaaagc acaggcagat 210 atttcaggag tctgctaggg ctggcactga gggcagagac agaggggtct ccctgtcctt 216 tggagaacct cacgctgcag aaattccaga ctgaaccttg ataccgagta ggggaggagc 222 tgtctgcggg tttgagcctg cagcaggagg aaggacgtga acattttatc agcttctggt 228 atggccttga gctggtagtt ataatcttgg ccctggtggc ccagggctac agtcatccta 234							
tgggccctc atttcccca aacacaggtt gtctgcagtc ttgaccaatg gctgccaggg 204 catggactcc gctgcaggg ccagtgggag gccccagctc aggcaaaagc acaggcagat 210 atttcaggag tctgctaggg ctggcactga gggcagagac agaggggtct ccctgtcctt 216 tggagaacct cacgctgcag aaattccaga ctgaaccttg ataccgagta ggggaggagc 222 tgtctgcggg tttgagcctg cagcaggagg aaggacgtga acattttatc agcttctggt 228 atggccttga gctggtagtt ataatcttgg ccctggtggc ccagggctac agtcatccta 234	atagcctaag	gatgcatttc	tcagaactta	tccctgttgt	tcaatgatgt	gtgtctatac	1920
catggactcc getgcagggg ccagtgggag geeceagete aggeaaaage acaggeagat 210 attteaggag tetgetaggg etggcactga gggcagagae agaggggtet ecetgteett 216 tggagaacet caegetgeag aaatteeaga etgaacettg atacegagta ggggaggage 222 tgtetgeggg tttgageetg eageaggagg aaggaegtga acattttate agettetggt 228 atggeettga getggtagtt ataatettgg eeetggtgge eeagggetae agteateeta 234	agtggggcca	taactaagac	gtatgttgcc	caagctggca	agatagctct	gaccttctct	1980
atttcaggag tctgctaggg ctggcactga gggcagagac agaggggtct ccctgtcctt 216 tggagaacct cacgctgcag aaattccaga ctgaaccttg ataccgagta ggggaggagc 222 tgtctgcggg tttgagcctg cagcaggagg aaggacgtga acattttatc agcttctggt 228 atggccttga gctggtagtt ataatcttgg ccctggtggc ccagggctac agtcatccta 234	tgggcccctc	atttccccca	aacacaggtt	gtctgcagtc	ttgaccaatg	gctgccaggg	2040
tggagaacct cacgctgcag aaattccaga ctgaaccttg ataccgagta ggggaggagc 222 tgtctgcggg tttgagcctg cagcaggagg aaggacgtga acattttatc agcttctggt 228 atggccttga gctggtagtt ataatcttgg ccctggtggc ccagggctac agtcatccta 234	catggactcc	gctgcagggg	ccagtgggag	gccccagctc	aggcaaaagc	acaggcagat	2100
tggagaacct cacgctgcag aaattccaga ctgaaccttg ataccgagta ggggaggagc 222 tgtctgcggg tttgagcctg cagcaggagg aaggacgtga acattttatc agcttctggt 228 atggccttga gctggtagtt ataatcttgg ccctggtggc ccagggctac agtcatccta 234							
tgtctgcggg tttgagcctg cagcaggagg aaggacgtga acattttatc agcttctggt 228 atggccttga gctggtagtt ataatcttgg ccctggtggc ccagggctac agtcatccta 234							
atggccttga gctggtagtt ataatcttgg ccctggtggc ccagggctac agtcatccta 234							
gcagtccccg ctgaagtgga gcaggtacag tcacagctgt ggggacagca atg 239							
	gcagtccccg	ctgaagtgga	gcaggtacag	tcacagctgt	ggggacagca	atg	2393

инд-